

*"Together, create and apply solutions"*

## **Invasive Animals Cooperative Research Centre**

Post: Building 22, University of Canberra BRUCE ACT 2617 Ph: +61 2 6201 2887 Fax: +61 2 6201 2532  
UC Innovation Centre, Building 22, Level A, University Drive South, University of Canberra, BRUCE ACT  
Email: [contact@invasiveanimals.com](mailto:contact@invasiveanimals.com) Website: [www.invasiveanimals.com](http://www.invasiveanimals.com)



IGAB Review Secretariat  
Department of Agriculture and Water Resources  
GPO Box 858  
CANBERRA ACT 2601

Dear Madam/Sir

The Invasive Animals CRC welcomes the opportunity to make a submission to the Intergovernmental Agreement on Biosecurity Review Draft Report.

The IA CRC is one of the world's largest integrated pest animal research and management collaborations. Its five year extension to 2017 is a \$72,5 million, 27 member partnership to develop new knowledge, products, strategies and services that deliver more strategic and efficient pest animal control.

We welcome this report. In particular we wish to applaud that attention is being paid to the challenges of managing the environmental harms of invasive species, to the management of new incursions and some of the significant implementation challenges of invasive species policies. Of particular note is the inclusion of Environment, acknowledgement of the need for longer funding cycles, and recognition of greater development of shared responsibility.

The document addresses the imbalance in representation between agriculture and environment, although agriculture is still disproportionately represented. We note illegal wildlife trade is not discussed, nor are the industries of tourism, transportation, retail/distribution, natural disaster management, and pet trade. The proposed structure continues to silo taxa groups and industries. Such partitioning will create inefficiencies in resource and priority allocation, and disconnection between system participants which in turn could ultimately leave Australia vulnerable to new incursions.

### **The invasive species governance system**

The IACRC has conducted extensive research on the institutional challenges to better manage established invasive species, and on aspects of the management of new incursions. Rather than re-present material already documented we draw them to your attention, forming part of this submission.

1. P. Martin, "Ecological restoration of rural landscapes: stewardship, governance, and fairness," *Restor. Ecol.*, vol. 24, no. 5, pp. 680–685, Sep. 2016. This paper provides a comprehensive analysis of the significant institutional challenges involved in rural natural resource management, in particular of invasive species; and P. Martin and J. Williams, "Next Generation Rural Natural Resource Governance : A Careful Diagnosis," in *Legal Aspects of Sustainable Development, V.* Mauerhofer, Ed. Switzerland: Springer International Publishing, 2016, pp. 607–628. These papers highlight the governance system challenges that must be overcome, including the economic incapacity of rural citizens to invest sufficiently and consistently, and the way in which this

interacts with the self-generating and mobile characteristics of invasive species to create a unique socio-ecological challenge.

2. P. Martin and D. L. Choy, "Recommendations for the reform of invasive species management institutions," Canberra ACT, 2016. Based on the report noted immediately below, this report indicates the need for a comprehensive reform to the invasive species governance system, and outlines a specific pathway for that reform. We believe that this proposal could be constructively reflected in your final report.
3. P. Martin, D. L. Choy, E. LeGal, and K. Lingard, "Effective citizen action on invasive species: The institutional challenge," Invasive Animals Cooperative Research Centre, Canberra ACT, 2016. This report and its attachments provide a substantial evidence base on the present and forecast challenges to the management of (particularly) established invasive species. It provides evidence of the need to refocus more energetically on the citizen aspect of invasive species management, and to reduce a number of (carefully documented and evidenced) impediments to effective action.

We believe that the final review should emphasise more that Australia is a signatory to the Biodiversity Convention and that under Australia's Biodiversity Conservation Strategy 2010-2030 invasive species impacts are identified as one of the three main priorities. However, primarily due to a lack of economic and political drivers, managing these environmental impacts receives relatively little policy attention and attracts insufficient public or private investment. We lack an investment or governance approach that might meet both the environmental and the agricultural challenges. This is a fundamental national challenge supported by international commitments that the IGAB should highlight.

### **Stronger Environmental Biosecurity**

Within this setting we agree that the roles of Animal Health Australia (AHA) and Plant Health Australia (PHA) (in collaboration with Wildlife Health Australia (WHA)) should be expanded to include environmental biosecurity, although it is not clear how the three entities would collaboratively operate. Nor does the review suggest which organisation/group would be the custodian for NEBRA, analogous to Animal Emergency Animal Disease Response Agreement (EADRA) managed by AHA and Emergency Plant Pest Response Deed (EPPRD) managed by PHA.

Raising the profile and influence of Environment in biosecurity is necessary. How the proposed establishment of a Chief Environmental Biosecurity Officer (CEBO) and an Environmental Biosecurity Committee (EBC) will ultimately impact biosecurity is dependent on the detail and who, in addition to Department of Environment and Energy (DEE), would comprise the EBC. Consider combining Environment, AHA and PHA to form a biosecurity centre that can tackle these limitations and facilitate a holistic approach to invasive species management. We doubt that Australians understand the degree to which present control is proving to be insufficient. Independent scrutiny and reporting, though potentially politically uncomfortable situations, could contribute greatly. A CEBO and an EBC might be charged with this responsibility provided that strong safeguards for independence are provided.

### **Building biosecurity pest by pest, disease by disease**

The concept of building a biosecurity system pest by pest, disease by disease is a sound approach for control of established species, but less effective for incursion management. It is difficult to predict which species will pose the greatest risk of establishment because of the many factors that impact invasive potential (e.g., source conditions, propagule pressure, climate, predation, reproductive and foraging success). Current risk assessments are labour intensive and protracted, and cannot be completed under the existing resourcing restrictions for every potential invasive. Identifying high risk pathways/activities and establishing priorities for pathway review is crucial to improve emergency response, and can capture a myriad of potential invasives rapidly with relatively little effort. This step should precede species-specific assessments and prioritisation. Addressing pathways first, then assessing high risk species/taxa potentially moved within those pathways will streamline the

incursion prioritisation process, increase efficiency and decrease unnecessary assessments. In turn, this will decrease the time and cost of developing assessments.

An alternative to the “pest by pest, disease by disease” concept for incursion management is required. The adaptation of the Hazard Analysis and Critical Control Point (HACCP) planning model is one of the most promising and flexible approaches to incursion management available. The Invasive Animals CRC under IPAC guidance has sponsored research and development into a nationally recognised incursion management system based on HACCP (IS-HACCP). We recently developed a concept document (available upon request) that highlights how this internationally recognised system benefits Australia’s biosecurity. With reference to Table 1 (page 11), IS-HACCP can, across all levels, facilitate collaboration, cooperation, resource and information sharing, particularly at the government and industry interface. From discussions with industry partners, there is a clear willingness to share responsibility of incursion management, but don’t know how to do so. IS-HACCP provides the structure to assist industries. It also provides a mechanism for improved documentation, storage and information sharing. Since IS-HACCP can be implemented across any industry, sector or taxa, it will create a common language and framework for incursion management. The food safety, horticulture, seafood and aquaculture industries demonstrate how quality systems like HACCP are shaping market access. Since BioSecure HACCP is already implemented in the Nursery and Gardens Industry Australia (NGIA), we strongly advocate a compatible IS-HACCP system for all other applications for incursion management.

Recommendation 14 suggests the NBC lead five-yearly national-level risk prioritisation for emerging animal, plant and environmental risks and pathways, in partnership with system participants, reporting to AGSOC and AGMIN. It is unclear how AGSOC and AGMIN will impartially assess priorities of non-agricultural industry groups.

### **Research and innovation**

Four areas restricting current biosecurity research and innovation (R & I) are

1. limited opportunities for long term funding,
2. restricted opportunities for vertical integration and across sectors,
3. unclear paths to adoption, and
4. relatively narrow priorities and focus.

R & I through to implementation cannot generally be achieved in a 3-5 year funding cycle. Although important funding has been allocated through mechanisms such as CRCs, these are relatively short-lived with little or no opportunity for further funding. Vulnerability to outcome delivery is inherent in such arrangements as funding opportunities are cyclical and restricted. Resilience to these cycles and mechanisms for vertical integration must be considered. As the review acknowledges, the R & I priorities are relatively narrow and sectorial, focusing disproportionately on agriculture. Expanding on the scope of biosecurity, inclusion of environment as an equally important function, allowing R & I to include the development of processes and systems, and facilitating flexibility will greatly improve the way forward. Investing in new systems such as IS-HACCP can provide a solid cross-sectorial platform around which to strengthen R & I and facilitate vertical integration and implementation.

### **Funding our national system**

In our reports we discuss the centrality of funding issues to biosecurity outcomes. We recommend the development of a national investment strategy for invasive species management that integrates various flows of potential investment into a more comprehensive public/private funding system. We also discuss the adverse effects of the transaction costs of the current funding and administrative arrangements on citizens, and on the efficient management of the far-too-scarce resources. These transactional matters have a very significant impact ‘on the front line’ but are not given the attention that is justified.

We believe that funding strategy is the key to shared responsibility, and that it is important to consider the interaction between public and private funding, targeting total investment effectiveness. Among the matters that need attention is for far greater innovation in the use of market arrangements (for example risk insurance arrangements tied to permitted entry) or private investment (for example new taxation arrangements to support biodiversity protection and restoration). There may also be further opportunities to allow industries to fund their own programs. IS-HACCP for example, allows participants to provide in-kind resources (e.g., manpower and documentation). Such systems are attractive to businesses because they decrease or negate additional fees and/or taxes, and facilitate greater control and ownership.

Yours faithfully

A handwritten signature in blue ink, appearing to read 'A. Glanznig', written in a cursive style.

Andreas Glanznig  
**Chief Executive**